

Mathias Schreier CV

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Education:

- Diplom (M.Sc), Meteorology, Ludwig-Maximilians-University Munich, Germany (2003)
- Ph.D., Atmospheric Physics, University of Bremen, Germany (2007)

Professional Experience

- Jet Propulsion Laboratory (2013 – present)
 - o Scientist, AIRS Atmospheric Science Group
- University of California, Los Angeles/Jet Propulsion Laboratory (2009-2013)
 - o Research Assistant for Regional Earth System Science and Engineering (JIFRESSE) of UCLA/JPL (2010-2013)
 - o Post-Doc within Joint Institute for Regional Earth System Science and Engineering (JIFRESSE) of UCLA/JPL (2009-2010)
- University of Bremen (2004-2008)
 - Research Assistant within the SeaKLIM-project
- Meteorological Institute Munich, LMU Munich (2003-2004)
 - Research Assistant

Projects:

- AIRS (Atmospheric Infrared Sounder)
- NPP (National Polar-orbiting Partnership)

Selected Publications

- (1) **Schreier, M. M.**, Kahn, B. H., Sušelj, K., Karlsson, J., Ou, S. C., Yue, Q., and Nasiri, S. L. (2014): Atmospheric parameters in a subtropical cloud regime transition derived by AIRS and MODIS: observed statistical variability compared to ERA-Interim, *Atmos. Chem. Phys.*, 14, 3573-3587, doi:10.5194/acp-14-3573-2014.
- (2) Kahn, B. H., Irion, F. W., Dang, V. T., Manning, E. M., Nasiri, S. L., Naud, C. M., Blaisdell, J. M., **Schreier, M. M.**, Yue, Q., Bowman, K. W., Fetzer, E. J., Hulley, G. C., Liou, K. N., Lubin, D., Ou, S. C., Susskind, J., Takano, Y., Tian, B., and Worden, J. R. (2014): The Atmospheric Infrared Sounder version 6 cloud products, *Atmos. Chem. Phys.*, 14, 399-426, doi:10.5194/acp-14-399-2014.
- (3) Yue, Q., B. H. Kahn, H. Xiao, **M. M. Schreier**, E. J. Fetzer, J. Teixeira, and K. Sušelj (2013): Transitions of cloud-topped marine boundary layers characterized by AIRS, MODIS, and a large eddy simulation model, *J. Geophys. Res. Atmos.*, 118, 8598–8611, doi:10.1002/jgrd.50676.
- (4) Ou, S.S.C., B.H. Kahn, K.N. Liou, Y. Takano, **M.M. Schreier**, and Q. Yue (2013), Retrieval of Cirrus Cloud Properties from the Atmospheric Infrared Sounder: The k-Coefficient Approach combined with SARTA plus Delta-Four Stream Approximation (2012), *IEEE Trans. Geosci. Remote Sens*, **51**, 1010-1024.
- (5) Kahn, B. H., S. L. Nasiri, **M. M. Schreier**, and B. A. Baum (2011), Impacts of subpixel cloud heterogeneity on infrared thermodynamic phase assessment, *J. Geophys. Res.*, 116, D20201, doi:10.1029/2011JD015774.
- (6) Nasiri S.L., V.T. Dang, B.H. Kahn, E.J. Fetzer, E.M. Manning, **M.M. Schreier**, and R.A. Frey (2011): Comparing MODIS and AIRS infrared-based cloud retrievals, *J. Appl. Meteorol. Climatol.*, 50, 1057-1072.
- (7) **Schreier, M.M.**, B. H. Kahn, A. Eldering, D. A. Elliot, E. Fishbein, F. W. Irion, and T. S. Pagano (2010): Radiance comparisons of MODIS and AIRS using spatial response information, *J. Atmos. Ocean. Tech.*, 27, 1331-1342, doi: 10.1175/2010jtecha1424.1.
- (8) **Schreier M.**, L. Joxe, V. Eyring, H. Bovensmann, and J.P. Burrows (2010): Ship track characteristics derived from geostationary satellite observations on the west coast of southern Africa, *Atmos. Res.*, **95**, 1, 32–39, DOI: 10.1016/j.atmosres.2009.08.005.
- (9) Kokhanovsky A. A., and **M. Schreier** (2009): The determination of snow specific surface area, albedo, and effective grain size using AATSR spaceborne measurements, *Int. J. Remote Sens.*, **30**, 919–933.
- (10) Kokhanovsky A.A., **M. Schreier**, and W. von Hoyningen-Huene (2008): The comparison of spectral top-of-atmosphere reflectances measured by AATSR, MERIS, and SCIAMACHY onboard ENVISAT, *Geosci. Remote Sens. Lett.*, **5**, 53–56.

- (11) Kokhanovsky A. A., T. Nauss, **M. Schreier**, W. von Hoyningen-Huene, and J.P. Burrows (2007): The intercomparison of cloud parameters derived using multiple satellite instruments, *IEEE Trans. Geosci. Remote Sens.*, **45**, 195–200.
- (12) **Schreier M.**, H. Mannstein, V. Eyring, and H. Bovensmann (2007): Global ship track distribution and radiative forcing from 1-year of AATSR-data, *Geophys. Res. Lett.*, **34**, L17814, doi:10.1029/2007GL030664.
- (13) **Schreier, M.** A. A. Kokhanovsky, V. Eyring, L. Bugiaro, H. Mannstein, B. Mayer, H. Bovensmann, and J. P. Burrows (2006): Impact of ship emissions on microphysical, optical and radiative properties of marine stratus: A case study, *Atmos. Chem. Phys.*, **6**, 4925–4942.
- (14) Seefeldner, M., A. Oppenrieder, D. Rabus, J. Reuder, **M. Schreier**, P. Hoeppe, and P. Koepke (2004): A two-axis tracking system with datalogger, *J. Atmos. Ocean. Tech.*, **21**, 975–979.